

An Ecosystem Approach to Conservation of Natural Resources

I will cover these issues:

- The Clinton Administration Policy on Ecosystem Management,
- What this means for federal agencies,
- Ecosystem Management is controversial, and
- I will offer a challenge to you.

I prefer to use the term Ecosystem Approach because agencies like the U.S. Forest Service and the Bureau of Land Management, manage land and resources for the public trust. But the Natural Resources Conservation Service does not manage resources or ecosystems. It provides technical assistance, on a volunteer basis, to land owners and managers who manage resources. Because of my work with NRCS, an Ecosystem Approach is a much more user friendly term. We are not going to take something and manage it, we're going to approach an ecosystem and understand it first.

An Ecosystem approach considers three things:

1. Ecological concerns ³
2. Economic concerns ³ in a community
3. Social concerns ³

Ecology is the relationship of organisms and their environment, which includes humans. Economics relates to the production and management of material wealth, such as farming, industry, or other business opportunities—or lack of them. And social refers to people living together in communities; this includes such things as human history in an area, population trends, encroaching development on agriculture land, etc. These last two parts of an ecosystem refer specifically to human activities.

An ecosystem and an environment are not the same thing!

An environment is part of an ecosystem.

The current policy of the Clinton Administration is that all agencies and Departments of the Federal Government will use Ecosystem Management in their work.

- Each agency has developed policies to apply this new approach.

The good news is:

Agencies are working together,
forming new partnerships, and
understanding people and communities better.

The bad news is:

The practice is new.
It's a new way of thinking.
It's meaning is not clear .
There is apprehension and fear.

Before an Ecosystem approach:

Employees of the NRCS worked with farmers and ranchers to develop conservation plans and apply technical assistance to control erosion, improve water quality, and so forth. If, for example a farmer wanted to reduce erosion on a crop field with a long slope, we might recommend and help install a pipe outlet terrace system. Usually the pipe outlets from these storage terraces would outlet directly into a nearby stream.

With an Ecosystem Approach we need to understand all of the farmers concerns (use a more holistic point of view) We need to:

Consider past and future conditions—the history and trends of agriculture in the area.

Consider the local community—maybe this stream flows into a river which the nearby town—where the farmer goes to church and his children go to school—gets its drinking water from.

Consider economic conditions—agribusiness, employment trends, etc.

Consider social conditions—is the population expanding and development encroaching on the farm? Is the farmer concerned about wildlife—maybe he would like to provide better habitat, or attract Canadian Geese and ducks to the property.

- For example, instead of outletting the terraces directly into the stream, the farmer might prefer to outlet them into a constructed wetland that would filter and clean the water before it enters the stream and provide habitat for wildfowl and other wildlife.

There are controversies:

Ecosystem Management is not new in theory, it's been around since the 1930's, but it is new in practice.

There are concerns that an Ecosystem approach will:

- Pry into personal lives,
- Limit landowners ability to make decisions,
- Not consider community economic conditions,
- Make problems between neighbors.

But from NRCS point of view:

An ecosystem approach can be good for all parties. When all parties sit down at the table and discuss their concerns and commitment to a community problem, then they have taken the first step towards broad based support for solving a problem. The first, and possibly the most important goal, is to have each person at the table return to home and business with a clear understanding of their part in the situation. Then as each party sees the bigger picture—whether it's a farmer, local citizen, local government or agency representative, or others—the commitment, trust, and benefit to all, can be reached.

In summary:

- We're applying an old theory to conservation of natural resources.
- But, it's new in practice, and not clear to everyone.
- There is fear about this new practice.
- It's a new way of thinking.
- It is not the environment or environmentalism!
- When ecological, economic, and social conditions are considered, the outcome can be good for all.

When I visit my fathers farm I like to stand on top of a large hill in the pasture field, where I can see for miles. Behind me is the forest where owls, hawks, skunks, raccoons, and many other creatures live. Off to my left, on an adjacent farm, is a Victorian house that was refurbished several years ago. But, it is not part of the farm land any more. The land is owned and farmed by a corporation that plants everything in no-till corn or soybeans, where there used to be smaller crop fields, pastures, fence rows, and trees. Across the hills in front of me is the Methodist church, built at the turn of the century. And beyond, in the wooded hills is a large pond built with the technical assistance of NRCS. It's part of a summer camp where inner city kids come and learn about the outdoors and themselves. And to my right is a pond and a stream that flows into Broad creek; where at the Broad Creek Boy Scout Camp, boys play in the swimming hole as they have for decades. The stream flows into Deer Creek, named after the Deer Creek Indians, and into the Susquehanna River, where small towns get their drinking water, and into the Chesapeake Bay, where my brother in law crabs and fishes for Rock Fish.

I offer you this challenge:

When you return to your home or conservation work, stand in a place that you like outside—a field, park, your garden or yard. Think about the history of the area, its business and economic opportunities, the local population and social trends, the animals, plants, and other creatures that share the environment.

When you stop to understand all of these parts of the ecosystem, you will take your next step with an Ecosystem Approach.

(Presented by Bill Boyer, Ecological Communications Specialist, at the 50th annual meeting of the Soil & Water Conservation Society, concurrent session "Conservation—It's Bigger Than Your Land," August 7, 1995.)